

Notice of Allowability

Application No.

09/867,678

Examiner

Khanh B. Pham

Applicant(s)

CHONG ET AL.

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 7/13/2004.
2. ☒ The allowed claim(s) is/are 8-23 (Renumbered as 1-16).
3. ☒ The drawings filed on 31 May 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.
2. Applicant's submission filed on July 13, 2004 has been entered. Claims 1-7 have been canceled. Claims 15-23 have been added. Claims 8-23 are pending in this Office Action.

Allowable Subject Matter

3. **Claims 8-23 are allowed.** (Renumbered as 1-16)
4. The following is an examiner's statement of reasons for allowance:

Regarding independent claims 8, 13-15, 17, prior art of record does not teach the combination of claimed elements including the steps of: "generating a row of a mapping table for each row of the primary B+tree and storing in each row of the mapping table a row identifier for a corresponding row of the primary B+tree" as recited in claims 8, 13-15, nor "storing in each row of the primary B+tree a mapping table row identifier" as recited in claim 17. The closest prior art (Knudsen, US 5,682,535 A) teaches at Fig. 27 a "primary key index" (element 502) with pointers to a B+tree (element 507), it is noted that Knudsen describes at Col. 68, lines 50-65 that "The primary key index is a balanced binary tree 507 based on the B+ tree organization ordered on the primary key", therefore Knudsen's Fig. 27 does not teach a mapping table as claimed.

Regarding independent claims 9, 20, prior art of record does not teach the combination of claimed elements including the steps of: "computing a length of a mapping table row based upon a length of a primary key and an overhead of guess-DBA; utilizing the computed length to identify a mapping table block that can accommodate the row; reserving a slot in the identified mapping table block, wherein an address of the block and a reserved slot form a mapping table physical row identifier; utilizing a leaf block address of the primary B+tree row to construct a row of the mapping table; and inserting the mapping table row in the reserved slot" as recited in independent claims 9, 20.

Thus, prior art of record neither renders obvious nor anticipates the combination of claimed elements in light of the specification. After a further search and a thorough examination of the present application and in light of the prior art made of record, claims 8, 9, 13-15, 17, 20 are allowed. Dependent claims 10-12, 16, 18-19, 21-23 are allowed at least by virtue of their dependencies from pertinent independent claims.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

5. The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is (703) 305-9601 for faster service.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khanh B. Pham
Examiner
Art Unit 2177

KBP
October 8, 2004


SRI RAMA CHANDRASEKHAR
PRIMARY EXAMINER